

# Factors and types of regional development in Russia



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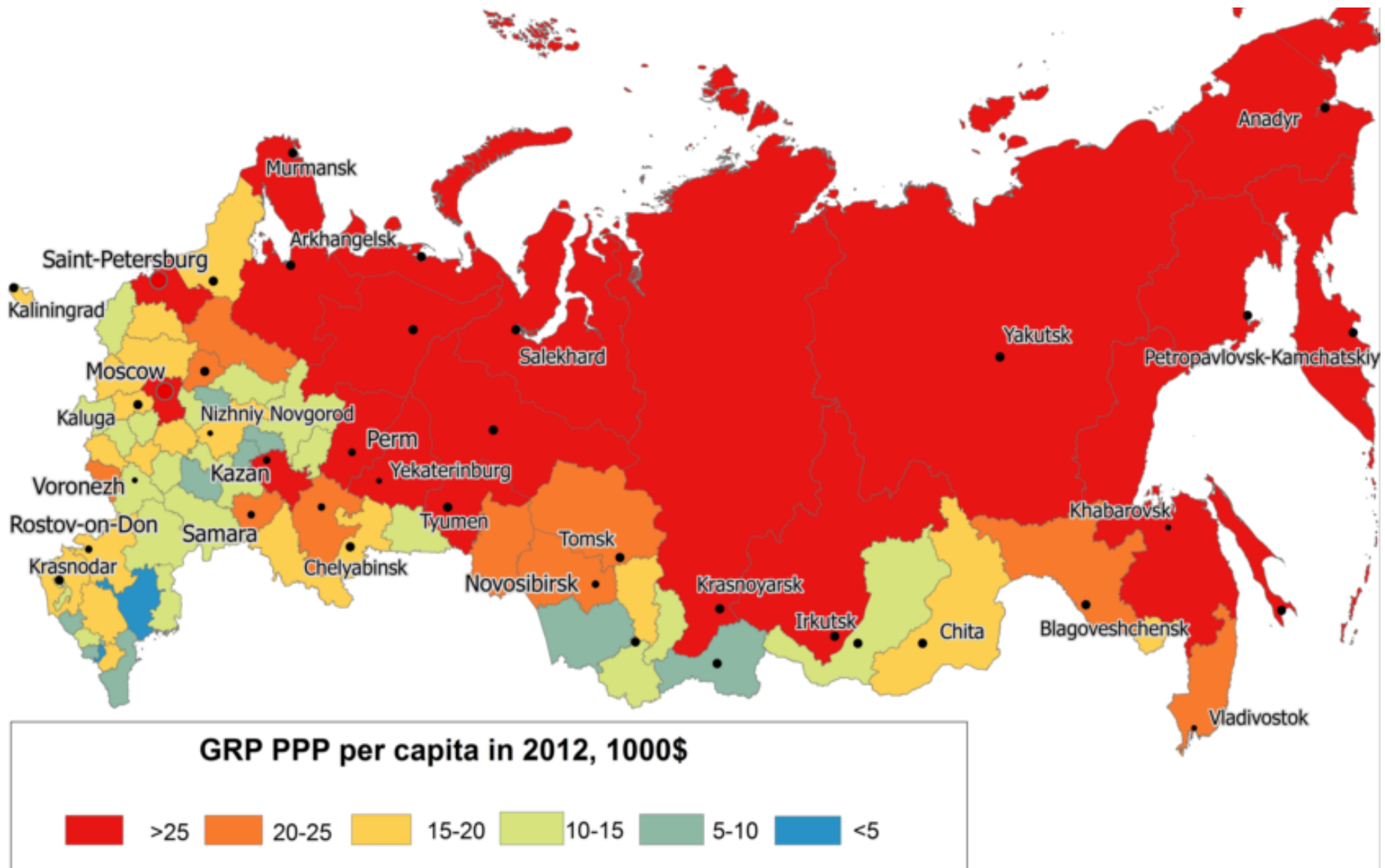
# The aims

- To analyze the **regional structure of economic development** in Russia during 1998 – 2012 (Putin's era)
- To identify the **main factors** of regional development
- To identify the **main types** of regions according the rate and factors of growth

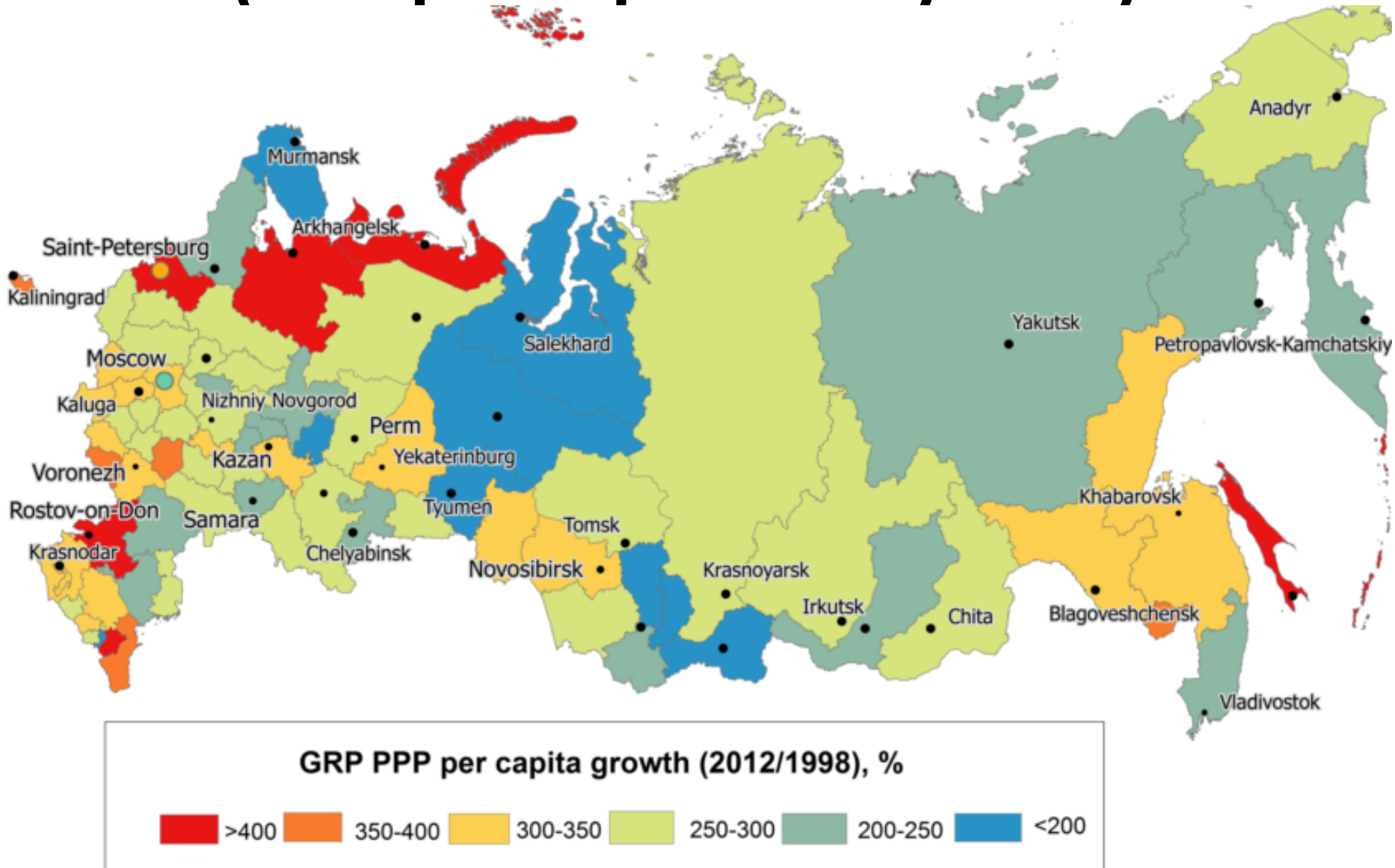
# Regional performance in 1998



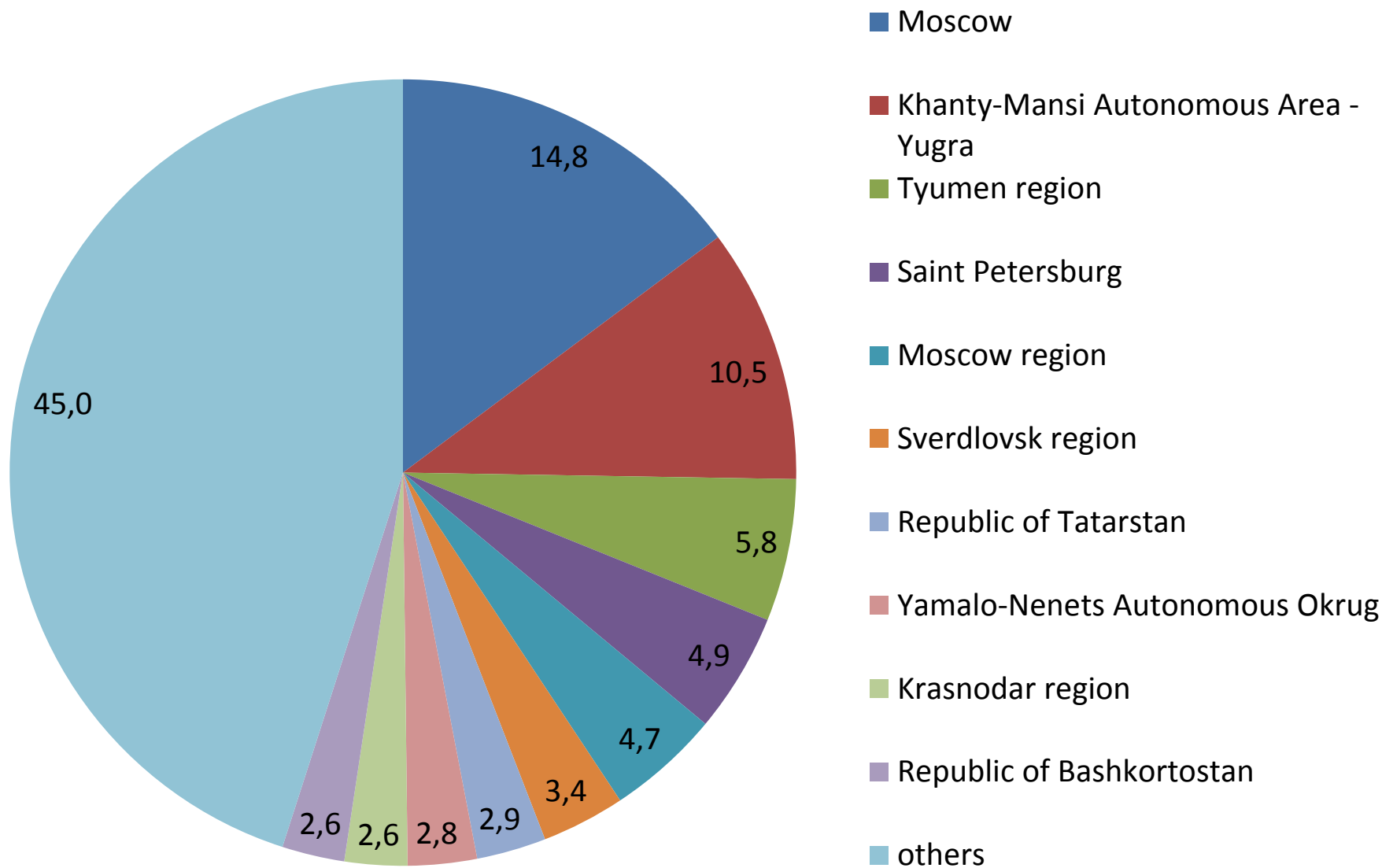
# Regional performance in 2012



# Regional development (GRP per capita 2012/1998)



# The regional structure of the absolute growth of GRP in Russia



# The model

$$\text{GRP per capita}_{2012/1998} = \text{const} + \alpha \times \ln(\text{GRP per capita}_{1998}) + \beta_i \times \ln \text{factors}$$

## Factors:

Investment growth, including FDI

Population growth

Human capital

Innovation potential

Export growth

Economic-geographical position

Agglomeration

# Results

	1	2	3	4	5
const	3.9 (0.64)***	5.3 (0.29)***	5.6 (0.39)***	6 (0.23)***	4.44 (0.66)***
I_GRP per capita in 1998	-0.08 (0.03)***	-0.08 (0.02)***	-0.14 (0.03)***	-0.1 (0.02)***	-0.08 (0.02)***
I_Investment per GRP	0.33 (0.06)***	0.23 (0.03)***	0.26 (0.07)***		
I_Growth of active population	0.24 (0.1)**				0.3 (0.02)**
I_Export growth (2012/1998)		0.07 (0.01)***	0.09 (0.01)***	0.05 (0.007)***	0.05 (0.008)***
I_Import of equipment per GRP			0.04 (0.01)***		
I_Potential of economic-geographical position (EGP) in 1998				0.026 (0.015)*	
I_FDI per GRP				0.03 (0.02)*	0.04 (0.02)**
I_Potential of EGP per GRP					0.02 (0.01)*
<b>R-squared</b>	0.6	0.68	0.65	0.79	0.81
<b>Adjusted R-squared</b>	0.58	0.66	0.62	0.78	0.8
<b>Schwarz criterion</b>	348.6	387.8	335.9	351.5	353.9



# Types of regional development



	Regional developmen t (GRP per capita 2012/1998)	GRP per capita 1998	Investme nt/GRP	Population growth	Export growth	FDI/ GRP	Equipme nt import/ GRP	EGP	Type
Sakhalin Region	175	130	66	86	1053	1419	146	40	Regions, which exporting raw materials (oil, gas, metals, etc.) with unfavorable economic-geographical position
Nenets Autonomous Okru	171	1554	78	85	0	458	0	45	
Chukotka Autonomous Ok	168	182	52	64	0	74	77	4	
Leningrad region	144	81	79	107	152	220	348	417	Highly and middle developed diversified regions with a high proportion of FDI and equipment imports in GRP
Arhangelsk region	144	96	43	77	38	32	53	270	Regions with a favorable economic-geographical position
The Republic of Dagestan	144	24	63	162	22	13	14	77	Underdeveloped (subsidized) poorly industrialized regions with a growth of the economically active population, a small proportion of investment and export in GRP
Belgorod region	135	78	45	107	85	23	261	107	Highly and middle developed diversified regions with high export potential
Tambov Region	134	49	54	95	33	15	22	62	Underdeveloped (subsidized) poorly industrialized regions with a growth of the economically active population, a small proportion of investment and export in GRP
Jewish Autonomous Regio	131	46	76	86	72	50	20	177	
Rostov region	130	56	44	100	136	44	142	358	Highly and middle developed diversified regions with high export potential
Kaluga region	129	60	53	97	144	483	1020	73	Highly and middle developed diversified regions with a high proportion of FDI and equipment imports in GRP
Kaliningrad region	128	55	52	96	80	88	1215	941	
Omsk region	121	82	33	96	21	221	31	9	
Sverdlovsk region	120	102	40	92	56	32	80	17	Highly and middle developed diversified regions with high export potential
Saint Petersburg	118	118	36	111	200	100	313	413	Highly and middle developed diversified regions with a high proportion of FDI and equipment imports in GRP

# Conclusions

- **Regional performance vary greatly** in Russia, but all regions achieved high growth rates in the 2000s
- Absolute **growth is concentrated** in 10 largest and developed regions (more than 50%)
- The **main factors** of regional development **are extensive** (growth of physical capital and labour), based on usage of natural resources and geographical position
- Factors of the “**second nature**” (human capital, innovation) are **not working** for the most of the regions, except technological import
- **International connections** (export, import, FDI, EGP) are important for regional development